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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MORGAN & FINNEGAN
345 PARK AVENUE
NEW YORK, NY 10154

EXAMINER

HANNETT, JAMES M

ART UNIT	PAPER NUMBER
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2612

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DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/255,549	Applicant(s) KAWAHARA ET AL.	
	Examiner James M Hannett	Art Unit 2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION***Response to Arguments***

Applicant's arguments filed 8/28/2003 have been fully considered but they are not persuasive. The applicants arguments that Hwang does not disclose performing a delaying step of delaying an input image signal by a predetermined time; This step is viewed by the examiner as storing the previous image in the image buffer as depicted in Figure 4. An adding step of adding the input image signal to the delayed image signal at any predetermined ratio This is viewed by the examiner as the image adding step as viewed in Figure 4.

The argument that the examiner is speculating in light of the applicants own disclosure as to how the image stabilization circuit of Hwang would function if the image was a still image is not persuasive. The examiner points out in Figure 4 of Hwang that the motion compensation or image stabilization circuit of Hwang is performed using the current input image and an image stored in the image buffer, which is the image recorded in the previous frame of image data during a motion picture operation. The motion compensation circuit detects the difference in the two images and adds the images together to correct for motion over different frames of image data, It is inherent that because the motion compensation circuit performs motion compensation based on two images taken at different times to compare their differences that if only one picture was to be taken, there would be no initial frame of reference to store in the image buffer of Figure 4. Therefore, there would be no comparison and the addition control step would not be performed.

Claim Rejections - 35 USC § 103

Art Unit: 2612

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4: Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,526,045 Oshima et al in view of USPN 6,122,004 Hwang.

5: As for Claim 1, Oshima et al depicts in Figure 33 an image sensing method comprising:

A vibration detecting step of detecting vibration on an image sensing apparatus main body; Column 50, Lines 20-28, The vibration detection step is performed by the Pitch and Yaw fluctuation detectors (8a and 8b) on the camera main body (1). A calculating step of calculating a correction variable based on vibration data indicative of the vibration of the image sensing apparatus main body detected in the vibration detection step; Column 50, Lines 21-26. The calculating step being the calculations to determine the fluctuation correction amounts in each of the horizontal and vertical directions calculated by the fluctuation control circuit (9) based on the data from the fluctuation detectors. A control step of controlling a timing of reading an image signal from an image sensing device based on a calculation result of the calculating step; Column 30, Lines 12-17. The horizontal and vertical drive units control the timing of readout of the image sensor. The horizontal and vertical drive circuits are further controlled in response to the Pitch and Yaw fluctuations calculated by the fluctuation control circuit.

Art Unit: 2612

Oshima et al does not teach the use of a delaying step of delaying the read image signal by a predetermined time; An adding step of adding the read image signal to the delayed image signal, delayed in the delaying step, at a predetermined addition ratio based on the calculation result of the calculating step; and an addition control step of prohibiting addition of the adding step when sensing a still image.

Hwang teaches in Figure 6 and on Column 4, Lines 44-66, the use of a delaying step of delaying the read image signal by predetermined time (66 and 63). An adding step (65) of adding the read image signal to the delayed image signal, delayed in the delaying step, at a predetermined addition ratio based on the calculating result of the calculating step in a moving image recording mode. An addition control step of prohibiting addition of the adding step in a still image recording mode. The delay step for delaying the read image signal by a predetermined time is performed by the first buffer and the image shifting means. The image adding means adds the delayed read image signal output by the image shifting means (63) with the read image signal output by the second buffer (64). The predetermined adding ratio changes in that the amount of image in the second buffer (64) added to the delayed image is proportional to how much shift was imposed on the image in the image shifting means (63) controlled by the motion detector. Furthermore, it is inherent that if the image was a still image no shifting would take place in the image shifting means (63) and therefore, no portion of the image in the second buffer (64) would be added to the delayed image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the camera of Oshima et al so that the output image signals from the image sensor can be processed by the image signal correction

Art Unit: 2612

circuit of Hwang to enable the camera of Hwang to better process both still and motion video.

6: In regards to Claim 2, Oshima et al teaches on Column 10, Lines 2-14 the use of a switching step of switching between a still image sensing mode and a moving image sensing mode, and a recording step of performing recording operation of the still image based on a mode switched in the switching step.

7: As for Claim 3, Oshima et al depicts in Figure 33 an image sensing method comprising:

A vibration detecting step of detecting vibration on an image sensing apparatus main body; Column 50, Lines 20-28, The vibration detection step is performed by the Pitch and Yaw fluctuation detectors (8a and 8b) on the camera main body (1). A calculating step of calculating a correction variable based on vibration data indicative of the vibration of the image sensing apparatus main body detected in the vibration detection step; Column 50, Lines 21-26. The calculating step being the calculations to determine the fluctuation correction amounts in each of the horizontal and vertical directions calculated by the fluctuation control circuit (9) based on the data from the fluctuation detectors. A control step of controlling a timing of reading an image signal from an image sensing device based on a calculating result of the calculating step in a moving image recording mode; Column 30, Lines 12-17. The horizontal and vertical drive units control the timing of readout of the image sensor. The horizontal and vertical drive circuits are further controlled in response to the Pitch and Yaw fluctuations calculated by the fluctuation control circuit.

Art Unit: 2612

Oshima et al does not teach the use of a delaying step of delaying the read image signal by a predetermined time; An adding step of adding the read image signal to the delayed image signal, delayed in the delaying step, at a predetermined addition ratio based on the calculation result of the calculating step; and an addition control step of prohibiting addition of the adding step when sensing a still image.

Hwang teaches in Figure 6 and on Column 4, Lines 44-66, the use of a delaying step of delaying the read image signal by predetermined time (66 and 63). An adding step (65) of adding the read image signal to the delayed image signal, delayed in the delaying step, at a predetermined addition ratio based on the calculation result of the calculating step. An addition control step of prohibiting addition of the adding step in a still image recording mode. The delay step for delaying the read image signal by a predetermined time is performed by the first buffer and the image shifting means. The image adding means adds the delayed read image signal output by the image shifting means (63) with the read image signal output by the second buffer (64). The predetermined adding ratio changes in that the amount of image in the second buffer (64) added to the delayed image is proportional to how much shift was imposed on the image in the image shifting means (63) controlled by the motion detector. Furthermore, it is inherent that if the image was a still image no shifting would take place in the image shifting means (63) and therefore, no portion of the image in the second buffer (64) would be added to the delayed image. Therefore, the adding ratio would be 1:0 and would not be performed.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the camera of Oshima et al so that the output image signals from the image sensor can be processed by the image signal correction

Art Unit: 2612

circuit of Hwang to enable the camera of Hwang to better process both still and motion video.

8: In regards to Claim 4, Oshima et al teaches on Column 10, Lines 2-14 the use of a switching step of switching between a still image sensing mode and a moving image sensing mode, and a recording step of performing recording operation of the still image based on a mode switched in the switching step.

9: As for Claim 5, Claim 5 is rejected for reasons related to Claim 1, since Claim 1 is substantively equivalent to Claim 5.

10: In regards to Claim 6, Claim 6 is rejected for reasons related to Claim 2, since Claim 2 is substantively equivalent to Claim 6.

11: As for Claim 7, Oshima et al further teaches on Column 8, Lines 31-40 that the vibration detection means is an angular velocity sensor (21A-21B).

12: In regards to Claim 8, Claim 8 is rejected for reasons related to Claim 3, since Claim 3 is substantively equivalent to Claim 8.

13: As for Claim 9, Claim 9 is rejected for reasons related to Claim 4, since Claim 4 is substantively equivalent to Claim 9.

14: In regards to Claim 10, Claim 10 is rejected for reasons related to Claim 7, since Claim 7 is substantively equivalent to Claim 10.

15: As for Claim 11, Claim 11 is rejected for reasons related to Claim 1, since Claim 1 is substantively equivalent to Claim 11.

16: In regards to Claim 12, Claim 12 is rejected for reasons related to Claim 2, since Claim 2 is substantively equivalent to Claim 12.

Art Unit: 2612

17: As for Claim 13, Claim 13 is rejected for reasons related to Claim 3, since Claim 3 is substantively equivalent to Claim 13.

18: In regards to Claim 14, Claim 14 is rejected for reasons related to Claim 4, since Claim 4 is substantively equivalent to Claim 14.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hannett whose telephone number is 703-305-7880. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-842-9314 for After Final communications.

Art Unit: 2612

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer service whose telephone number is 703-308-6789.

James Hannett
Examiner
Art Unit 2612

JMH
November 7, 2003


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600